Christ Church CofE Primary – Science Overview

Rationale

“In the same way, let your light shine before others, that they may see your good deeds and glorify your Father in heaven.” — Matthew 5:16

At Christ Church, we believe that every child is uniquely created in the image of God and deserves a curriculum that enables them to flourish academically, socially, morally, and spiritually. Through our SHINE values — to be Successful, Happy, Included, Nurtured, and Enriched — we seek to educate the whole child, helping them to discover their gifts and use them to make a positive difference in the world.

Science plays a vital role in this vision. It nurtures children’s natural curiosity about the world God has created and encourages them to ask questions, explore, and seek answers through investigation and reasoning. Through science, children develop a sense of awe and wonder, alongside the knowledge and skills needed to understand the world around them.

Science equips children with the ability to think critically, solve problems, and make informed decisions. It also helps them to understand the importance of caring for the environment and using scientific knowledge responsibly for the good of others.

The Christ Church CofE Offer

Science at Christ Church is taught through the CUSP curriculum, which is ambitious, coherent, and evidence-led. It meets and exceeds the National Curriculum while remaining firmly rooted in our Christian ethos and SHINE values.

We believe that science helps children to appreciate the beauty, complexity, and interconnectedness of God's creation. Through the study of scientific concepts, children develop respect for the natural world and an understanding of their responsibility as stewards of the Earth.

Our science curriculum promotes cultural capital by exposing children to significant scientific discoveries, diverse scientists, and the impact of science on society. It encourages children to consider ethical questions and the ways in which science can be used to improve lives locally and globally.

Curriculum Design

Our curriculum is deliberately sequenced to ensure that children build cumulative knowledge over time. From EYFS through Key Stage 2, children revisit and deepen their learning in meaningful ways, developing secure scientific understanding and the ability to make connections across topics and themes.

In the Early Years, children begin to explore ideas of the natural and physical world through play, storytelling, role-play, visitors, and first-hand experiences. This lays the foundation for future scientific enquiry. As children progress through school, they learn to think and work like scientists: asking questions, evaluating evidence, and forming evidence-based conclusions.

Our approach is driven by our children developing their:

- **Cumulative knowledge** – children revisit and build on prior learning from EYFS through KS2.
- **Progression and connection** – Learning is sequenced to build secure understanding of scientific concepts and show cause, consequence, and change.
- **Substantive and disciplinary knowledge** – children learn both key scientific facts/concepts and how scientists work.
- **Vocabulary development** – Scientific vocabulary (Tier 2 and Tier 3) is taught explicitly, sequentially, and cumulatively.
- **Inclusivity** – High expectations are set for all children, with adaptations for SEND and EAL to ensure access and challenge.

Big Ideas - Substantive Concepts					
Living Things	Matter	Forces and Energy	Earth and Space	Systems and Change	Scientific Knowledge and Innovation
Understanding that living organisms have characteristics that distinguish them from non-living things. Includes plants, animals, humans, and microorganisms Focus on life processes such as growth, reproduction, and survival Explores classification and habitats	Understanding the properties and states of materials Solids, liquids, and gases Changes of state and reversibility How materials are used based on their properties	Understanding how things move and interact Pushes, pulls, gravity, friction, and air resistance Light, sound, electricity, and heat Energy transfer and its uses	Understanding the world and beyond The structure of the Earth The solar system and celestial bodies Day and night, seasons, and natural phenomena	Understanding how systems function and evolve Life cycles Human body systems Environmental changes and sustainability	Understanding how scientific knowledge develops Contributions of significant scientists How ideas change over time The impact of science on society

Disciplinary Knowledge					
Scientific Enquiry	Observation Over Time:	Pattern Seeking:	Comparative and Fair Testing	Research and Evidence	Evaluation:
Asking questions and making predictions	Noticing changes and patterns Recording data systematically	Identifying relationships and trends	Controlling variables Making valid comparisons.	Using secondary sources	Reflecting on findings Identifying reliability and improvements

Planning and carrying out investigations Observing, measuring, and recording results				Interpreting data and drawing conclusions	

Structure and Planning

Science is taught through carefully sequenced units that build upon prior learning and prepare children for future study. Each lesson revisits previous knowledge, introduces new content, and provides opportunities for practice and application.

Our science curriculum is delivered in well-structured units that allow children to develop depth in both knowledge and enquiry skills. Retrieval practice, questioning, and practical investigations support long-term retention.

Practical science is at the heart of our approach. Children regularly engage in hands-on investigations that allow them to explore scientific concepts in meaningful ways.

Educational visits and enrichment opportunities, such as workshops and visitors, further enhance learning and bring science to life beyond the classroom.

Special Educational Needs and Disabilities

At Christ Church, science is inclusive and accessible to all. Lessons are adapted to meet the needs of children with SEND, including those in our Focus Provision. Strategies such as visual supports, scaffolded tasks, structured questioning, and sensory-friendly approaches enable every child to participate fully.

Children with English as an additional language are supported through language scaffolds, ensuring that they can access the curriculum and develop the vocabulary needed to succeed. High expectations are

maintained for all children, with appropriate levels of support and challenge.

Curriculum Impact

Through our science curriculum, children gain knowledge, skills, and understanding that prepare them for life beyond Christ Church. They develop curiosity about the natural world, a love of learning, and the ability to think critically about human experience. Over time, children become more confident, reflective, and independent in their enquiry.

Assessment is ongoing and purposeful, with teachers using questioning, discussion, and retrieval activities to check understanding. Summative assessments ensure progression across year groups, while pupil voice allows children to reflect on their learning and articulate what they have remembered.

Ultimately, the impact of our science curriculum is seen in the way children leave Christ Church: as resilient, responsible children who understand the importance of science in shaping the world and who are equipped to make a positive difference in society.

Roles and Responsibilities

The Role of Headteacher

The Headteacher is responsible for ensuring that this policy is adhered to, and that:

- All required elements of the curriculum, and those subjects which the school chooses to offer, have aims and objectives which reflect the aims of the school and indicate how the needs of individual children will be met.
- The amount of time provided for teaching the required elements of the curriculum is adequate and is reviewed

- They manage requests to withdraw children from curriculum subjects, where appropriate
- The school's procedures for assessment meet all legal requirements
- Proper provision is in place for children with different abilities and needs, including children with SEN

The Role of all other staff

Staff are responsible for delivering a high-quality, broad, and balanced curriculum that meets or exceeds National Curriculum expectations. They will:

- Implement the curriculum in line with this policy, ensuring all children make excellent progress.
- Be responsive to children's needs, making learning personal and relevant.
- Promote strong moral values and encourage children to make a positive impact locally and globally.
- Uphold the highest standards, recognising that our children deserve the very best.

The Role of Families

Parents and carers play a vital role in supporting the curriculum by:

- Encouraging a positive attitude towards learning at home and in school.
- Engaging with the school's curriculum through parents' evenings and communications.
- Supporting home learning and reading to reinforce classroom learning.
- Communicating with the school about any factors affecting their child's ability to access the curriculum.
- Promoting curiosity, resilience, and high aspirations in their child's learning journey.

The Role of Governors

Governors support and monitor the effectiveness of the curriculum by:

- Championing an ambitious, inclusive, and enriching curriculum for all children.
- Monitoring the impact of the curriculum on pupil progress and outcomes through reports, data, and school visits.
- Supporting staff development focused on curriculum design, delivery, and subject leadership.
- Ensuring the curriculum is broad, balanced, and aligned with statutory requirements.
- Holding leaders to account for the coherence, quality, and impact of the curriculum across all phases and subjects.